

Aerial Spraying and Mosquito Control

When large numbers of mosquitoes are found or people in a large area are getting sick from a mosquito-borne disease, airplanes can be used to treat very large areas with insecticides safely, quickly, and efficiently by aerial spraying.

Is aerial spraying an effective tool for mosquito abatement?

Yes. Aerial treatment of areas with products that quickly reduce both adult mosquitoes and their larvae that carry mosquito-borne viruses can be effective.

Is aerial spraying alone the best way to control mosquitoes?

Aerial spraying is only one part of the solution for controlling mosquitoes, but it is the one method that can rapidly reduce the number of mosquitoes in a large area that can carry disease.

Aerial spraying is used as part of an integrated mosquito control program to quickly reduce the number of mosquitoes responsible for infecting people with viruses like West Nile Virus, Zika, dengue, or chikungunya.

An integrated mosquito control program includes:

- Source reduction. Empty items that can hold water like buckets, planters, and tires.
- Structural barriers. Make sure screens are in good condition and fit tightly on doors and windows.
- Adult mosquito control using insecticides.
- Community education/outreach related to preventing mosquito bites by wearing EPA-registered insect repellents and long-sleeved shirts and long pants.

Aerial Spraying and Insecticides

EPA-registered insecticides are used for aerial spraying. They have been studied for their effectiveness and safety when used according to label instructions. Aerial spraying, using Naled/Dibrom and other insecticides, has been used in many areas of the United States.

What happens to Naled/Dibrom once it is sprayed?

Naled/Dibrom starts to dissipate (break down) immediately on surfaces, in water, and in sunlight. The chemical dichlorvos (DDVP) can be created when it degrades. It also breaks down quickly. In small quantities DDVP has not been shown to cause health problems in people.

What about Bti? Can it be applied through aerial spraying?

No. Bti is often applied using methods that are not aerial spraying. It can be applied using truck-mounted spraying. It can also be found as dunks or briquettes that can be put in areas of standing water that cannot be emptied, such as fountains and ornamental ponds, septic tanks, and unchlorinated pools.



Aerial Spraying and Human Health

Aerial spraying can help reduce the chances of getting a mosquito-borne disease. A small amount of insecticide is sprayed over an area, about 1 ounce (two tablespoons) per acre. Droplets float in the air and kill adult mosquitoes on contact. This small amount does not pose a health risk to people or pets in the area that is sprayed. EPA has classified Naled as Group E “Evidence of Non-carcinogenicity for Humans,” meaning that there is no evidence that it causes cancer in people.

When aerial spraying is done correctly, it does not cause asthma attacks. Out of an abundance of caution, people should stay inside their home when spraying is taking place. Aerial spraying is conducted by a licensed professional.

Animals/Fish/Birds. When aerial spraying is done correctly, it does not harm animals or birds. It will not harm fish or animals that live in the water. People do not need to cover fish ponds when spraying takes place. If a larvicide is sprayed, it is better if ponds are not covered.

Bees. Aerial spraying can be done in ways that minimize risk to bees. Spraying Naled can kill bees outside of their hives at the time of spraying; therefore, spraying is limited to dawn or dusk when bees are inside their hives. Because Naled breaks down quickly, it does not pose a risk to the honey bee populations. For additional protection, beekeepers can reduce potential exposure to bee colonies by covering colonies and preventing bees from exiting during designated treatment periods or, if possible, relocating colonies to an untreated site.

Aerial Spraying and the Environment

When aerial spraying is done correctly, it does not pollute water or will not contaminate soil. Spraying does not cause harm to the environment or local ecosystem, even if spraying happens more than once.

Resources on Insecticides and Health

- The [US Environmental Protection Agency](#) oversees the registration of these chemicals.
- The [National Pesticide Information Center \(NPIC\)](#) provides information online or through a toll-free number, **1.800.858.7378**.

If you are experiencing health problems for any reason, see your doctor or healthcare provider.



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